Last	When the cleaning is completed, unplug the power cord, open the lid and retrieve the basket and the items. Empty the tank and clean both the outside and inside of the device with clean and dry cloth for next use. Keep the drainage valve closed. (for 6L and above units).

WARNING : Strong acid or alkaline cleaning solution will cause corrosion, rust and even puncture of tank or machine body. To overcome this problem, dilute to mild PH solution or request for tank made of specific grade of stainless steel like SUS304.

Specifications

Model	Tank Size	Overall Size	Capacity	Power	Heating power	Frequency
	(L×W×H)mm	(L×W×H)mm	L	W	W	KHz
DCG-80H	150×140×100	190×170×220	2	50	100	33-40
DCG-120H	240×140×100	275×170×240	3	100	100	
DCG-150H	300×155×150	330×180×310	6	150	300	
DCG-200H	300×240×150	330×270×310	9	200	300	
DCG-250H	330×300×150	360×330×310	13	300	400	
DCG-300H	500×300×150	550×330×310	20	400	500	
DCG-400H	500×300×200	550×330×360	27	500	500	

Q：Heating 0-80℃ temperature can be adjustable

T: Time Setting1-99 minutes can be adjustable

S: Smart Control

CE FC

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SMART ULTRASONIC CLEANER USER MANUAL

FEATURES

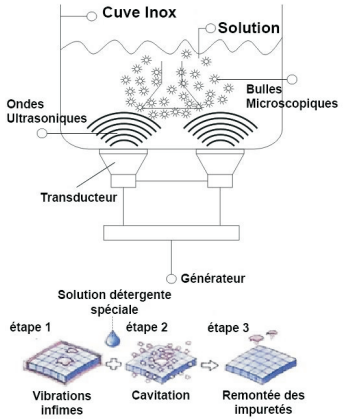
- Normal and soft power control to resolve the cleaning blind spot .
- Degas function for increase the cleaning effect.
- Automatically ultrasonic frequency tracking.
- User-friendly and clear panel.
- Memory function.
- Sleep mode.
- LED display for temperature and timer.
- High-performance transducers.
- Patent products.

Thank you for purchasing the ultrasonic cleaner. Please take the time to read these operating instructions before use and retain them for future reference. Failure to follow these instructions may lead to serious personal injury and damage to property.

INTRODUCTION

Ultrasonic cleaning is on based on the cavitation effect caused by high frequency ultrasonic wave vibration signal in the fluid. Microscopic bubbles are formed, and they implode violently causing the cavitation which create an intense scrubbing action on the surface of the item being cleaned. The bubbles are small enough to penetrate microscopic crevices, cleaning them thoroughly and consistently.

Ultrasonic cleaning is extremely effective at removing dirt and grime which would normally require tedious manual cleaning by hand. It has been used to clean a wide variety of instruments and mechanical parts such as carburetors, returning them to almost “like new” condition without damage to delicate parts.



PREPARATION:

1. Carefully unpack the cleaner and remove all traces of packing materials from it. Visually inspect the cleaner for any parts that may have become loose or damaged during transit.

Contents:

a: Main machine b: Soundproof lid c: Power cord
d: Outlet filter e: Mesh basket f: User manual

2. Place the cleaner on a flat, clean surface where the cooling fans will receive adequate ventilation and ensure all controls are set to off. Also ensure the drain tap is in the closed position.
3. Ensure the power cord is securely plugged into the cleaner and that no part is likely to come into contact with moisture.
4. Carefully fill at least ½ of the tank with a solvent solution. For demanding cleaning we recommend a small amount of washing up liquid, this will help increase the cleaning performance. The cleaner is now ready for use.

⚠ Attention

While the machine is working normally, ultrasonic and tank syntony gives a well-proportioned sound, and no shudder on the surface of the water, yet there is spray made by the tiny bubbles. If there are discontinuous surges, please add or release a little of washing solution in the tank, stopping the surges is better for the objects cleaning.

Heating	2.When setting the temperature, if the setting temperature exceed the environment temperature, press key, the heating working, and indicator on.If below environment temperature ,the heating couldn`t start, and indicator turn off. 3.Heating won`t shut off automatically, if you don't press . 4.The device with memory function and acquiesce in the temperature you setting last time.
Degas Mode	After timer and temperature setting, press , the corresponding indicator on and the device will work in degas mode : working 6 seconds, and stop 2 seconds, then working 6 seconds,….cycle like this with countdown display. Intermittent operation of ultrasonic power for a quicker degassing of the cleaning liquid. If you want to transfer to other mode, just press or ,then the “degas” indicator turn off and indicator for “normal” or “soft” turn on; If want to stop working, press again, then both heating and ultrasonic will stop and the corresponding indicator turn off .
Normal Mode	After timer and temperature setting, Press ”Normal” key, the corresponding indicator on and the device will work in normal mode: continuously working with full ultrasonic power and countdown display. If you want to transfer to other mode, just press or , the “normal” indicator turn off and indicator for “degas” or “soft” turn on; if you want to stop working, press again, then both heating and ultrasonic will stop and the corresponding indicator turn off.
Soft Mode	After timer and temperature setting, press , the corresponding indicator on and the device will work in soft mode. If you want to transfer to other mode, just press or , the “soft” indicator turn off and indicator of “degas” or “normal” turn on; if you want to stop working, press again, then both heating and ultrasonic will stop and the corresponding indicator turn off. **Note:** Degas, Normal and Soft cannot be operated simultaneously.

A:LED display temperature.
B :LED display cleaning time.
C:Heating button:Press this button for start/stop heating.
(Note:1:The new machine will display the ambient temperature when first time use.)
D:IncreaseTemperature :
Press this button to set the temperature.
Press one time to increase 1℃, holding the key to increase by 10℃
E:Temperature reduce:
Press this button to set the temperature.
Press one time to reduce 1℃,holding the key to reduce by 10℃ .
F:Degas:Fresh solutions with many air which reduce effective ultrasonic action.
Using Degas mode speeds up the degassing process and improves cleaning efficiency.
G:Soft:60% power for delicate applications .
H:Normal 100% power to the tank for normal applications .
I:Timer increase :Press this button to set the cleaning time
Press one time to increase 1minute,holding the key to increase by 10minutes.
J:Timer reduce :
Press one time to reduce 1minute,holding the key to reduce by 10minutes.

OPERATION GUIDELINES

Step	Action
1.	Select your cleaning solution, fill at least ½ of solution into the tank. Do not exceed the filling line. **Note:** Do not ever use alcohol, gasoline or flammable solutions. Doing so could cause a fire or explosion. Use only water-based solutions.
2.	Place the items into a basket, Slowly lower the basket into tank, do not allow items to contact the tank bottom (solution should cover the items).
3.	Plug the cleaner into grounded outlet. **Note:** After the power on, the temperature you see on the machine is environment temperature. Time and temperature default as the last setting ones.(3 minutes default time for initial use)
Timer	Press to setting the cleaning time. When timer count down to 00:00, the ultrasonic stop working. **Note:** The device with memory function and acquiesce in the time you setting last time.
Heating	Press to start/stop heating. Press to setting the temperature. **Note:** 1. To get the best cleaning result, the solution's temperature we suggest is 40-60℃. Warm water and dish washing liquid can soften grease and improve cleaning result.

SAFETY PRECAUTIONS

Keep it away from children !

This device is not intended to use by individuals with restricted physical sensory or metal capacities or those with lack of experience or knowledge, include children, unless they are supervised by an individual who is responsible for their safety or have received training in operating the device .

Please read the following very carefully as failure to comply may invalidate your guarantee

To avoid electrical shock:

1) DO NOT run the cleaner continuously for more than one hour at a time, as doing so can damage the internal components.
2) DO NOT operate the unit without fluid in the tank. Always ensure the fluid is no higher than the max mark, Always ensure there is a minimum depth of 7cm.
3) DO NOT drop any item into the tank as this may cause damage to the transducer. Always place the items gently into the tank and use the basket whenever possible.
4) The more items that you place in your cleaning bath the less efficient it will clean.It is not advised to overlap items. Always allow plenty of clear space between the items.
5) Do keep the lid on during use. This will prevent splashes and reduce evaporation of the fluid.
6) Never immerse the machine or power cord in water or other liquid.
7) DO NOT touch the power plug with wet hands, especially when inserting or removing the plug.
8) DO NOT touch the unit if the machine has fallen into water during operation. Remove the power plug from the socket first.
9) DO NOT disassemble the machine, except by professionals.
10) UNPLUG the power source while filling or emptying the tank.
11) DO NOT spray water or liquid over the device and the control panel.
12) DO NOT operate the cleaner without proper grounding.
13) DO NOT place the device on a soft surface, where the vents could be blocked.
14) Upon completion of the cleaning cycle, turn the heater knob off and isolate the machine from the electrical supply.
15) Take care when adding or removing items from the cleaning tank as the fluid is likely to be hot and displaced fluid can damage the internal componentsAny displaced fluid must be dried up immediately.

16) In the event of failure/emergency, disconnect the mains supply by removing the plug from the mains socket.

APPLICATION

Provided product is non-porous and can normally be immersed in water almost anything can be thoroughly cleaned. Here are some examples:	
Health and Beauty	**Beauty and Chiropody Institutes:** scissors, scalpels, comedo removers, pincers, nippers, forceps and razors with the removal of organic tissue before sterilization treatments
	Dental Practices and Dental Technician Laboratories: dental instruments, removing organic and blood residues, cleaning hand pieces, drills, heads for ultrasonic ablators, glass objects and mirrors; the removal of cement from spatulas and plaster from prostheses.
Hospital and Laboratories	**Hospital Wards and Analysis Laboratories:** endoscopic probes, surgical instruments, glass containers in analysis laboratories with the removal of proteins, blood and organic tissue.
	Tattoo Studios: grips, tips and needles.
Goldsmithery and Silversmithery	Necklaces, bracelets, rings, precious stones, watch casings and straps, precision mechanical movements.
Manufacturing	Aerospace,Pharmaceutical,Defence,Automotive, Marine, Filtration,Moulding,Food and Beverage, Plating & Surface Finishing,Semi-Conductors.
Optical	During edging and polishing, debris and abrasives can scratch lenses. Ultrasonic cleaning can effectively protect the lenses.
Military	Reusable brass, gun parts, etc.
Regeneration	For cleaning dot matrix printers and photocopier ink cartridges.
Maintenance	Mobile phones, bicycle gears, air purifiers. It cleans out debris in tiny holes and crevices effectively.

Items Not Suitable For Ultrasonic Cleaning

Soft Jewelry: Pearls, emerald, ivory, coral. Agate, sea turtle shells, etc.

Welded, Plated and Glued Items: Welded or plated metal items, glued items.

Watches: Except diver's watches with depth rating over 50m(150ft).

Others: Ceramic, camera filters with preexisting cracks.

Unit front view/side view

A:Filling line **B: SUS304 tank** **C:Plastic carrying handles**

D:Draining **E:Warning marking** **F:Soundpoof lid**

G:Anti-slide feet

Unit back view

A:louver

B:Socket

C:QC pass sticker

D:Rating label

Front panel